

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-36. (canceled)

37. (previously presented) A semiconductor device, comprising:

a substrate;

an insulating layer formed on the substrate;

a conductive fin formed on the insulating layer, the conductive fin including a plurality of side surfaces and a top surface;

a source region formed on the insulating layer adjacent a first end of the conductive fin;

a drain region formed on the insulating layer adjacent a second end of the conductive fin; and

a metal gate formed on the insulating layer adjacent the conductive fin in a channel region of the semiconductor device.

38. (previously presented) The semiconductor device of claim 37, further comprising:

a dielectric layer formed on the top surface and side surfaces of the conductive fin in the channel region of the semiconductor device.

39. (previously presented) The semiconductor device of claim 38, wherein the dielectric layer has a dielectric constant greater than about 3.9.

40. (currently amended) The semiconductor device of claim 37, wherein the metal gate comprises at least one of titanium ~~and~~ or tantalum.

41. (new) A semiconductor device, comprising:

- a substrate;
- an insulating layer formed on the substrate;
- a silicon fin formed on the insulating layer, the silicon fin including a plurality of side surfaces and a top surface;
- a source region formed on the insulating layer adjacent a first end of the silicon fin;
- a drain region formed on the insulating layer adjacent a second end of the silicon fin; and
- a metal gate formed on the insulating layer adjacent the silicon fin in a channel region of the semiconductor device.

42. (new) The semiconductor device of claim 41, wherein the silicon fin has a thickness ranging from about 300 Å to about 1,500 Å.

43. (new) The semiconductor device of claim 41, wherein the metal gate has a thickness ranging from about 700 Å to about 2,000 Å.

44. (new) The semiconductor device of claim 41, further comprising:
a dielectric layer having a high dielectric constant value formed on the top surface and side surfaces of the silicon fin in the channel region of the semiconductor device.

45. (new) The semiconductor device of claim 44, wherein the dielectric layer comprises hafnium.

46. (new) The semiconductor device of claim 45, wherein the dielectric material comprises a hafnium oxide.

47. (new) The semiconductor device of claim 45, wherein the dielectric layer comprises HfSiO.

48. (new) The semiconductor device of claim 41, wherein the metal gate comprises titanium.

49. (new) The semiconductor device of claim 48, wherein the metal gate comprises a titanium nitride.

50. (new) The semiconductor device of claim 41, wherein the metal gate comprises tantalum.

51. (new) The semiconductor device of claim 50, wherein the metal gate comprises a tantalum nitride.

52. (new) A semiconductor device, comprising:

- a substrate;
- an insulating layer formed on the substrate;
- a conductive fin formed on the insulating layer, the conductive fin including a plurality of side surfaces and a top surface and having a thickness ranging from about 300 Å to about 1,500 Å;
- a dielectric layer having a high dielectric constant formed on the top surface and side surfaces of the silicon fin;
- a source region formed on the insulating layer adjacent a first end of the silicon fin;
- a drain region formed on the insulating layer adjacent a second end of the silicon fin; and
- a metal gate comprising titanium or tantalum formed on the insulating layer and over a portion of the conductive fin.

53. (new) The semiconductor device of claim 52, wherein the insulating layer comprises a silicon oxide having a thickness ranging from about 1,000 Å to about 3,000 Å.

54. (new) The semiconductor device of claim 52, wherein the dielectric layer has a dielectric constant greater than 3.9.

55. (new) The semiconductor device of claim 52, wherein the conductive fin has a thickness ranging from about 300 Å to about 1,500 Å.